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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): 028.1108

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Application Number	Filed
09/176,639	October 20, 1998

First Named Inventor: Richard Robert SCHEDIWY

Art Unit	Examiner
2629	Srilakshmi K. KUMAR

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [X] attorney or agent of record. Registration number 38579.
- [ ] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

/S. JARED PITTS/
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August 28, 2007
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

[X] *Total of 1 forms are submitted.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.	:	09/176,639	Confirmation No. 2112
Applicant	:	Richard Robert SCHEDIWY et al.	
Filed	:	October 20, 1998	
TC/A.U.	:	2629	
Examiner	:	Kumar, Srilakshmi K.	
Docket No.	:	028.1108	
Customer No.	:	69819	

ARGUMENTS ACCOMPANYING PRE-APPEAL BRIEF REQUEST FOR REVIEW

I. Status of Claims

Claims 24 and 52 - 96 are currently pending in the application, with claims 24, 52, 63, 68 and 88. Claims 24 and 63 have been allowed.

II. Rejections under 35 U.S.C. § 103

In the final office action June 14, 2007, claims 52-59, 60-70, 72 and 74-96 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Grabner et al (U.S. Patent No. 4,731,694), in view of Miller et al (U.S. Patent No 5,374,787), in further view of Greanias et al (U.S. Patent No.5,386,219). In response, applicants first note that touch pad disclosed in Grabner is best described a resistive-based touch pad where a change in resistance is used to determine object location. Specifically, a pressure-dependent resistance is coupled to fixed capacity and used as the measuring variable. See the abstract of Grabner. See also column 4, lines 37-63 and FIG. 2 that illustrate an equivalent circuit diagram for the Grabner touch pad and describe it as being based upon a change in resistance due to pressure on the touch pad. Nowhere is Grabner described as forming a capacitor and sensing "the capacitance to determine a position of the conductive object" as recited in independent claim 52.

Furthermore, applicants note that the covering 24 of Grabner is described as metallized on its upper flat side and electrically grounded, with the metallization effective as a

shield. See column 4, lines 26-29. Applicants submit that such a presumably high-conductivity, grounded layer would hinder any sort of effective capacitive detection of an image of a conductive object. Thus, Grabner does not teach capacitive detection, nor could the metallized layer 24 be used to generate an image that is capacitively detected.

With regard to Miller, the Examiner stated that Miller discloses a touch layer having a conductivity selected to create an image of a conductive object that is larger than an area of contact with said conductive object, citing column 8, line 58 to column 9, line 25 of Miller. Applicants respectfully disagree, and submit that the Examiner has mischaracterized the Miller reference. Instead, Miller specifically teaches an **insulative** touch layer. See column 8, lines 58-60 and FIG. 1D, where Miller teaches "An **insulating layer** 24 is disposed over the sense pads 22 on the top surface 16 to **insulate** a human finger or other object therefrom" (emphasis added). Note that FIG. 1D clearly shows the insulating layer 24 on top the device. Thus, insulating layer 24 would clearly comprise the touch layer of the device. Any conductive elements described by Miller are in the underlying sensor layers, and would not be touched and thus not be part of any "touch layer". Thus, Miller clearly teaches an **insulative touch layer**. Miller likewise fails to teach a touch layer having any specified conductivity.

With regard to the Greanias, the Examiner stated that Greanias teaches a sensor layer that capacitively detects an image of a conductive object when a user places a conductive object proximate said touch layer, citing column 7 lines 14-23 and column 8, lines 19-50 of Greanias. Applicants agree that the Greanias reference does describe a touch pad that uses capacitance to detect the presence of a stylus or finger. However, Greanias, like Miller, also teaches an insulative touch layer.

For example, FIG. 1 and column 5, lines 43-63 of Greanias illustrate and describe a touch pad system. The overlay 16 of the Greanias touch pad is described as a laminate structure including several plastic substrate layers laminated together. Inside the overlay are conductors 16A disposed in the vertical direction and 16B disposed in the horizontal directions. The layers that make up the touch pad are illustrated in more detail in FIGS. 5, 6 7 and 8 Greanias. In all cases, the top cover or "touch layer" is either described as an insulator or its conductivity is not specified. For example, with regard to FIG. 5, the protective top cover 98 is described as being similar in composition to lower and upper substrates 90 and 94, and these substrates are described as being sheets of transparent, **insulating** material. See

Greanias at column 17, lines 27-47. With regard to FIG. 6, the conductivity of the top layer 98 is not specified. However, given that the same reference numeral 98 is used it should again be interpreted to be an insulative layer. With regard to FIGS. 7 and 8, the top layer is an upper substrate 94, again using the same reference numeral that is described as a transparent insulating material with reference to FIG. 6. Finally, each of the independent claims 1, 10, 15, and 28 in Greanias recite a top cover "of a flexible, transparent, **insulating** material".

Thus, the Greanias reference does not teach the use of any top layer that has a "conductivity selected to create an image of a conductive object" as recited in applicants amended independent claim 52, and similarly recited in the other independent claims.

As stated above, the Examiner based the rejection on a combination of Greanias, Grabner and Miller. Specifically, the Examiner stated that "It would have been obvious to one of ordinary skill in the art to incorporate wherein the sensor layer capacitively detects the image of said conductive object when a user places a conductive object proximate said touch layer as shown by Greanias into that of Grabner et al. The feature of capacitive detection is advantageously disclosed by Greanias in column 3, lines 25-37, as it improves the accuracy of determining the position of the touch". Thus, the Examiner appears to allege the "metallized layer" of Grabner can be combined with the capacitive position determination of Greanias and Miller to provide the claimed invention.

Applicants disagree, and respectfully submit that the amended claims are patentably distinct over this alleged combination of references for several reasons. First, applicants submit that the references do not suggest the combination, and in fact teach away from the combination. Second, applicants submit that based on the teachings of the references, the alleged combination would be unworkable. Third, even if such a combination was appropriate and workable, it would not meet all of the claimed limitations.

Specifically, the references clearly teach away from the combination in that both references that **teach capacitive position determination clearly also teach an insulative touch layer**. Specifically, Miller teaches "An **insulating layer** 24 is disposed over the sense pads 22 on the top surface 16 to **insulate** a human finger or other object therefrom" (emphasis added) See column 8, lines 58-60 and FIG. 1D. Likewise, Greanias teaches a insulative touch layer, and each of the independent claims 1, 10, 15, and 28 in Greanias recite a top cover "of a

flexible, transparent, **insulating** material". Thus, both Greanias and Miller expressly teach away from using conductive touch layer. Finally, while Grabner teaches a "metallized layer", it clearly is a resistive-based touch pad where a change in resistance is used to determine object location. Applicants further note that the Examiners stated justifications for making the combination are mere statements of general advantage, and thus cannot over come express teaching away of the references.

Furthermore, applicants submit the proposed combination is likely unworkable. Specifically, applicants submit that combining a grounded "metallized layer" of Grabner as a touch layer in a capacitive touch pad such as those disclosed in Greanias or Miller would result in an unworkable combination. As stated above, the covering 24 of Grabner is described as **metallized on its upper flat side and electrically grounded, with the metallization effective as a shield**. See column 4, lines 26-29. Applicants submit that such a presumably high-conductivity, grounded layer would **shield any sort of effective capacitive detection of a position of an image of a conductive object. In fact, acting as a "shield" is that stated purpose of the grounded metallized layer. See Grabner at column 4, lines 26-29.** Thus, the grounded metallized touch layer of Grabner could not be combined with the capacitive position determination of Greanias or Miller without unduly limiting the functionality of the capacitive position determination system.

Finally, even if there was a proper motivation to combine that was not expressly taught away from by the references, and even if the proposed combination was workable, the combination of references still fails to render applicants' claims unpatentable because not all claimed limitations are found in the combination. Specifically, none of the references teach a conductive touch layer with "a conductivity configured to create an image of said conductive object that is larger than an area of contact of said conductive object" as recited in applicants' claim 52 and similarly recited in the other independent claims. As stated above, Miller teaches insulative touch layer. Likewise, Greanias teaches an insulative touch layer. Finally, Grabner teaches a metallized layer, but nowhere states that the conductivity of the metallized layer is selected to create a larger image for capacitive detection. That Grabner fails to teach such a conductivity is not surprising given that Grabner is a resistive-based touch pad and thus would not capacitively detect such an image at all. See above. Furthermore, applicants again note that such a presumably high-conductivity, grounded layer would shield any sort of

effective capacitive detection of a position of an image of a conductive object, and that acting as a shield is the stated purpose of the metallized layer. Finally, applicants note that the Examiner admits that Grabner does not disclose a touch layer having a conductivity selected to create an image of a conductive object larger than an area of contact of said conductive object. See page 3, lines 3-7 of the final office action.

In summary, Miller and Greanias thus clearly teach insulative touch layers, and Grabner does not disclose a touch layer having a conductivity selected to create an image of a conductive object larger than an area of contact of said conductive object, as admitted by the Examiner. Thus, clearly none of the references teach such a capacitive sensor having a conductive touch layer with a conductivity selected to create an image of a conductive object larger than an area of contact of said conductive object, as substantially recited in each of applicants' independent claims.

III. Conclusion

In view of the foregoing, it is submitted that the Examiner's reliance upon Grabner, Greanias and/or Miller alone does not support an obviousness rejection of independent claims 24, 52, 63, 68 and 88. Furthermore, as claims 53-62, 64-67, 69-87 and 89-96 depend from, and include all the limitations of their respective independent claims, they are also submitted to be patentably distinct over the cited references. Hence, Applicants request that the reviewing panel find that the present application is in condition for allowance.

Respectfully submitted,

INGRASSIA FISHER & LORENZ, P.C.

Dated: August 28, 2007

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